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- (71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 12th Floor, 1111 Franklin Street, Oakland, CA 94607-5200 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LEE, Luke, P. [US/US]; 5 Meadows Court, Orinda, CA 94720 (US). SEO, Jeonggi [KR/US]; 318 Wilson Street #78, Albany, CA 94710 (US). IONESCU-ZANETTI, Cristian [US/US]; 1734 Blake Street #K, Berkeley, CA 94703 (US). KHINE, Michelle [US/US]; Apt. 1, 1640 Scenic Avenue, Berkeley, CA 94709 (US). SABOUNCHI, Poorya [US/US]; Apt. #2, 395 Camelback Road, Pleasant Hill, CA 94523 (US). SHAW, Robin [US/US]; * (US).

- (74) Agents: QUINE, Jonathan, Alan et al.; Quine Intellectual Property Law Group, P.C., P.O. Box 458, Alameda, CA 94501 (US).
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(57) Abstract: Method and systems that provide improved cell handling and assays in microfluidic systems and devices particularly using lateral cell trapping and methods of fabrication of the same.